

THE COST OF UNHEALTHY

Dan Thomson, DVM, discusses health and management opportunities from conception to consumption.

It was an eight-year observational study that shed light on the economic losses realized when cattle get sick during the feeding phase. From 1992-2000, the Texas A&M Ranch to Rail program evaluated factors affecting the performance, carcass quality and value of feedlot steers.

On a per head basis, there was a \$87.60 swing on net return during the feeding phase based on performance and medicine costs. On the rail, that translated to 40% of healthy animals grading Choice, with only 27% of sick cattle reaching the same quality grade.

Now, the number of healthy cattle grading Choice and higher has more than doubled to at least 80%, says veterinary consultant and Iowa State University veterinarian and professor Dan Thomson, DVM. Using the same ratio of healthy cattle to sick cattle from the Ranch to Rail study, he estimates 67% of sick cattle now achieve a Choice quality grade.

“Think of how far we’ve come in 20 years,” Thomson says. “But, that’s still a significant amount of dollars lost.”

In addition to his work at Iowa State, Thomson is an owner and managing partner of Production Animal Consultation (PAC) — a consultant and research group providing veterinary oversight for about 30% of cattle on feed nationwide. The group also has a cow-calf network of 50 veterinary practices that service nearly 1 million pairs throughout the High Plains and the West.

A third-generation veterinarian, Thomson was raised at his dad’s and grandfather’s veterinary clinic in Clearfield, Iowa. He recalls many freezing nights helping perform C-sections and pulling calves in deep snowbanks.

With a bachelor’s degree in animal science from Iowa State University, Thomson opted for a career in nutrition

— at first. He ventured into the feedlot world, earning a master’s and doctorate in ruminant nutrition from South Dakota State and Texas Tech University, respectfully, along the way.

“The lightbulb came on when I was working in feed yards, seeing the ability to tie together production and medicine,” he recalls. “I wanted to be able to solve problems holistically for our cattle feeding entities.”

With that conviction, he received a DVM from his undergraduate alma mater in his home state and built a career bridging the gap in health management practices from conception to consumption. Drawing on experience and leadership, Thomson discusses opportunities across the entire industry to add more value to beef.

At the ranch

Everything at the ranch prepares the calf for a successful trip to the feedyard and to harvest. Once a calf is born, almost everything from that point forward in the environment — exposure to disease or management practices — will influence optimum growth and carcass quality.

“As I look at the recipe for marbling,” Thomson shares, “I think of it as this: In a perfect environment with perfect nutrition and things to that nature, the animal has the opportunity for maximum growth.

“Any day that we decrease the intakes, or the optimum performance, is a day that we don’t get back and we can’t make up for,” he says.

Preconditioning and temperament are the best way to prep calves for the next phase to maintain marbling potential. During preconditioning, he recommends establishing vaccination protocols and teaching calves to eat from bunks and to drink from water tanks. That way,



Dan Thomson, DVM

continued from page 1

those practices are not stressors when calves arrive at the feedlot.

In tandem with preconditioning is improving temperament — in particular, acclimating cattle to humans. When cattle identify a human as a caregiver, the sooner they will trust their caregivers and show clinical signs.

“If cattle don’t trust people, they’re going to hide clinical signs until they’re so sick that we have a hard time catching up,” the veterinarian points out. “Not only does temperament maintain improvement in profitability and health and performance on the ranch, but it also parlays into improved performance and carcass characteristics at the feedlot.”

As the current chair of the National Cattlemen’s Beef Association’s Animal Welfare Committee, he highlights the importance of following Beef Quality Assurance protocol and parallels the program to planning for international travel. In the same way people get required vaccinations and learn some of the culture and language before traveling to a foreign country or new destination, cattle need to prepare for a new environment.

“At the end of the day, what we’re talking about is a change of address for cattle, prepping them to be prepared for a trip,” he says.

The last 48

Thomson says one of the biggest opportunities in the industry for retaining value is the last 48 hours cattle are on feed. While 1,200 pounds used to be the normal finishing weight, animals are now heading to the plant at 1,500 to 1,600 pounds. Heavier animals have a harder time moving — making low-stress handling even more important.

At this point in the journey, the priority is preventing cattle from going down on the truck or while walking to the plant, and reducing causes of dark cutting beef. Thomson says an animal that goes down must get up on its own without the aid of sorting sticks or hotshots. If it doesn’t, it is condemned per USDA-FSIS protocol and will be taken to rendering — making it a complete loss. Dark cutting beef, which occurs from over exertion, is severely discounted and costs about \$5 per head across the industry.

Thomson outlines key management practices during the final 48 hours to optimize value: keeping feed in front of animals and maintaining their normal routine prior to shipping; sorting and getting cattle out of pens calmly, walking them to the loadout with a lead rider and

minimizing the distance from the home pen to loadout; and keeping animals shaded and watered at the staging area. On the truck, overcrowding and driving habits like swerving and abrupt accelerating and decelerating can greatly increase stress.

“Feeding cattle today is precision agriculture, and we take care of these cattle with the greatest care. We don’t want to lose 200 days of precision in the last 5 minutes at the yard,” Thomson says.

Rail to retail

As a consultant for the processing industry, Thomson highlights two areas for constant improvement: human safety and animal welfare.

“What is good for cattle welfare and cattle flow in the back of the plant is what is good for human safety,” he says.

For instance, when cattle act aggressively toward handlers, it’s generally because they don’t know where to go and are scared. He is encouraged by improvements at the lairage stage across the industry to improve handling, including the use of rubber flooring, shade, lighting patterns, misters and water.

He recalls helping install the first Bud Tub in a processing plant at the National Beef Dodge City plant, which allowed for two people bringing animals up instead of five or six. “It’s a good day when people are bored and cattle just flow through the system,” he says.

Keeping cattle calm through this stage helps yield the most tender beef. From his experience on health and welfare committees for McDonald’s, Tyson, Dine Brands and more, Thomson says the story of safe handling throughout the animal’s life is just as important as having high-quality product to market.

“Those retailers want to be engaged in the industry,” he says. “They are basically the face of our industry... and as they roll out beef products, they are constantly questioned by activist groups about animal welfare, antibiotics and sustainability.”

Working with these organizations and applying their insight across the industry chain helps sell more beef and increase demand and price. A key part of that sale is connecting producers with shoppers to share how cattle are humanely raised.

“Nobody can connect with a consumer from any food animal industry better than a rancher or people in the beef industry,” Thomson says. “The more we communicate, the more we open our gates to people who do not have ill will, and the better off we’re going to be.” ♦